

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) In a network connectable to a printer and a registration server, a network registration protocol for registering the printer on the network, including the steps of:

installing a secret unique identifier in the printer and in a database of the registration server, before the printer is connected to the network; and,

upon connection of the printer to the network:

causing the printer and the registration server to determine a session key;

transmitting the secret unique identifier from the printer to the registration server a message formed by encrypting, using the session key:

the secret unique identifier;

a public unique identifier; and,

a public key of a public/private key pair;

~~and receiving the identifier in the registration server using a secure transmission over said network, wherein the secret unique identifier is not otherwise transmitted in the clear, when the printer is connected to the network; and~~

authenticating the printer to the registration server by causing the registration server to:

decrypt the message using the session key;

use the public unique identifier to obtain comparing the secret unique identifiers installed in the database;

compare the secret unique identifier installed in the database with the of the registration server and secret unique identifier received in the message; and,

generating and storing in the registration database a certificate containing the public unique identifier and associated public key, the certificate allowing a server to receive a session key from the printer, the session key being encrypted using the private key registration server from the printer.

2. (Original) The network registration protocol according to claim 1, including the

further step of holding said secret unique identifier in non-volatile memory in said printer, together with a public unique identifier.

3. (Original) The network registration protocol according to claim 2, including the further step of creating a public key together with its paired private key in said printer.

4. (Cancelled)

5. (Cancelled)

6. (Currently amended) The network registration protocol according to claim 51, wherein the printer and the registration server determine a session key by having where said secure transmission comprises the further step of said printer obtaining said registration server's certificate, authenticating it with reference to a certificate authority, using a public key-exchange key in said certificate to exchange a the secret session key with the server, and then using said secret session key to encrypt said transmission.

7. (Cancelled)

8. (Cancelled)

9. (New) A printer for connecting to a network, the printer undergoing registration with a registration server in accordance with a network registration protocol, the printer storing a secret unique identifier installed in the printer and in a database of the registration server, before the printer is connected to the network, wherein upon connection of the printer to the network, the printer undergoes registration by:

determining a session key for communicating with the registration server;

transmitting, to the registration server, a message formed by encrypting, using the session key;

the secret unique identifier;

a public unique identifier; and,

a public key of a public/private key pair;

the registration server being responsive to the message to authenticate the printer by;

decrypting the message using the secret key;
using the public unique identifier to obtain the secret unique
identifier installed in the database;
comparing the secret unique identifier installed in the database
with the secret unique identifier received in the message; and,
generating and storing in the registration database a certificate
containing the public unique identifier and associated public key, the
certificate allowing a server to receive a session key from the printer,
the session key being encrypted using the private key.

10. (New) A printer according to claim 9, wherein the printer generates the
public/private key pair.

11. (New) A printer according to claim 9, wherein the printer communicates securely
with servers coupled to the network by:

generating a communication session key;
generating a signature of the communication session key using the private key;
encrypting a message, using a public key of the server, the message including the
communication session key and the signature; and,

transmitting the encrypted message to the server, the server being responsive to the
message to:

decrypt the encrypted message using a private key of the server;
determine the certificate of the printer;
determine, using the certificate, the public key;
authenticate, using the public key, the signature; and,
use the session key to communicate with the printer in response to a
successful authentication.

12. (New) A printer according to claim 9, wherein the printer is adapted to communicate
with a sensing device and the network, thereby acting as a relay device to allow the sensing
device to communicate via the network.